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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/619,665 07/19/00 KAMATA

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EXAMINER

MULLINS, B

ART UNIT

PAPER NUMBER

2834

DATE MAILED:

09/17/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/619,665

Applicant(s)
Kamata et al

Examiner
Burton S. Mullins

Art Unit
2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jul 19, 2000 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☒ None of:

- ☒ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____


BURTON S. MULLINS
PRIMARY EXAMINER

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on July 19, 1999. It is noted, however, that applicant has not filed a certified copy of the Japanese application as required by 35 U.S.C. 119(b).

Drawings

2. Figures 15-16 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Specification

3. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification appears to be a poor translation of a Japanese specification and is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph, especially with regard to idiomatic expression. Examples of some unclear, inexact or verbose terms used in the specification are: "cooling medium is flown through an inside space" (p.5, lines 9-10); "the coil may be floatingly supported" (p.5, line 17); "a central small-thickness portion with an outside recessed portion" (p.6, lines 1-2). See also the rejections below under 35 USC 112 for other recitations appearing throughout the specification that must be revised.

Claim Rejections - 35 USC § 112

4. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Besides obvious errors of vague, indefinite language, the claims are replete with numerous errors of grammar and syntax. In claims 1, 6-8, recitations “inside comb-shaped member,” “driving direction,” “teeth of said comb-shaped member” and “flown through an inside space enclosed by said jacket” are all vague and indefinite. In claim 2, “to be opposed to each other” makes no sense. “[F]loatingly supported by said base portions” makes no sense. In claim 3, recitations “driving direction” and “coils...with partial overlapping with each other” are vague and indefinite. In claim 4, “central, small thickness portion,” “outside recessed portion” and “end portions...disposed at the recessed portion” are vague and indefinite. How can there be an “outside recessed portion” when the central portion has a “small thickness?” In claim 5, delete “to be.” In claims 9 and 17-19 recitations “driving direction” and “flown through an inside space of said jacket” are vague and indefinite. In claim 13, “a level of a portion of said jacket where said magnet and said coil are opposed to each other” is vague and indefinite. In claim 15, “protruded shape portion” does not complement the “inside recessed portion” and renders the claim vague and indefinite. In claim 16, “recessed shape portion” is vague and indefinite.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 1-9 and 17-19, as best understood, are rejected under 35 U.S.C. 102(b/e) as being anticipated by Kamata et al. (US 6,084,319). Kamata teaches a linear motor comprising a magnet 41a (Fig.3); a coil 42a; and a jacket 42b having an "inside comb-shaped" or "reinforcement" member 8 (Figs.5&8) extending along a driving direction (Figs.12-13), wherein the coil is engaged by teeth (Figs.12-13&15) and wherein a cooling medium flows through the inside of the jacket (c.5, lines 57-65; Fig.4).

Regarding claim 2, as best understood, note the pillars (Fig.11) holding the coils.

Regarding claims 3-4, as best understood, note overlapping coils of the embodiments in Figs.15-16 (c.11, line 24+).

Regarding claims 6-7 and 17-18, as best understood, the device of Kamata drives a movable stage 121 of an exposure apparatus (Fig.17).

Regarding claims 8 and 19, the method of applying photosensitive material to a substrate, exposing the substrate using the movable stage, and developing the exposed substrate is taught at c.12, line 59-c.13, line 23 (Figs.17-19).

7. Claims 9-11, 13 and 15-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Ebinuma (US 6,252,314). Ebinuma teaches a linear motor including a magnet 430/431; a coil 451; a jacket 453 enclosing the coil; a re-inforcement portion comprising inlet and outlet ports 454 and 455 extending longitudinally; wherein cooling fluid flows through the jacket (c.5, lines 34-40); with the re-inforcement portions comprising the inlet and outlet ports located on the outside of the jacket and not interfering with relative motion between the magnets and coil (Fig.5).

Regarding claims 17-18, as best understood, the device of Ebinuma drives a movable wafer stage 3 of an exposure apparatus (Figs.1-3).

Regarding claim 19, the method of applying photosensitive material to a substrate, exposing the substrate using the movable stage, and developing the exposed substrate is taught at c.8, lines 11-52 (Figs.10-11).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebinuma and Kamata. Ebinuma does not teach materials used for the re-inforcement portions.

Kamata teaches a jacket and jacket re-inforcement made of resinous material or ceramic for insulation (c.3, lines 13-15; c.7, lines 3-7).

It would have been obvious to one having ordinary skill in the art to provide ceramic re-inforcement portions per Kamata for the structure of Ebinuma since ceramic would have been desirable as an insulating material.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is (703) 305-7063.

bsm

September 13, 2001



**BURTON S. MULLINS
PRIMARY EXAMINER**